

### **REMARKS**

Claims 1-20 are pending in this application. Claims 1, 4, 6, 8, 12, 13 and 15 and 17 have been amended. Following the amendment, claims 1-20 remain with claims 1, 6, 15 and 17 being independent.

#### **Interview Summary**

Applicants thank the Examiner for the courtesy of a telephone interview conducted on February 21, 2007. Examiner Colbert and E. Walsh, Applicant's representative, participated in the interview. During the interview, the issues raised in the Office Action of December 8, 2006 were discussed. Also, the Examiner suggested amendments to proposed claim 6. The Examiner also suggested clarifications to claims 8, 10, 12 and 17. Also, the Examiner suggested that, because of the way the drawings appear in PAIR, a new set of drawings would be advisable.

The following remarks and amendments made herein may serve as a further summary of the interview.

#### **Objections to the Specification**

Applicants have amended the Specification to overcome the objection. This change has the effect of moving the last paragraph of page 16 to the top of page 17 and does not add new matter. Accordingly, the objection should be withdrawn.

#### **Claim Objections**

Claims 8, 12 and 13 were objected to because of informalities. Claims 8, 12 and 13 were amended to overcome the objection. Claim 1 was amended for consistency. Because the amendments merely reorder phrases in the claim, they do not alter the scope or meaning of the claim and therefore do not introduce new matter.

In light of the amendments, the objections to claims 8, 12 and 13 should be withdrawn.

*Claims Rejection 35 U.S.C. §112 first paragraph*

Claim 15 was rejected under 35 U.S.C. §112 first paragraph. The Examiner asserts that the term “dynamically created” is not used in the Specification or the Drawings. Though that term does not literally appear in the Specification, Applicants contend that the Specification provides adequate support for the claim. The interaction between a host and a server to create a socket with a dynamically allocated port as described in the present application provides adequate teaching to enable one of the skill in the art to perform a method that includes “receiving information about a dynamically created communication mechanism” and “establishing a second connection over the network on the dynamically created communication mechanism.”

Briefly, Fig. 3 of the application shows a client 16, which contains a client process 11A. Client 16 is connected over network 18 to server 12. Server 12 contains server process 11. As shown in Fig. 1, representing the prior art, it was known for a client and a server to communicate over a network, such as a network 18. The prior art represented in Fig. 1, however, did not include a communication channel identified as 16' in Fig. 3, which allows communication between client 16 and server 12 through storage system 14. A substantial portion of the present application, including the portion spanning pages 10-15, describes communication mechanisms that are dynamically created for use in establishing the channel through the storage system.

In the example embodiment being described in that passage, a first socket is established using a well known port (WKP). The purpose of that socket is to provide a connection over a network through which information about a second socket, created using a dynamically allocated port, can be communicated. The second socket therefore provides support for the claimed “dynamically created communication mechanism.” As part of communication of information about the second socket, the information is received. Accordingly, the Specification provides

adequate support for the claim limitation: “receiving information about a dynamically created communication mechanism.”

The application then describes communication using the second socket. Accordingly, the Specification provides adequate support for the claim limitation: “establishing a second connection over the network on the dynamically created communication mechanism.”

Examples of embodiments meeting these claim limitations are also shown in the drawings. In the example embodiment depicted in Fig. 5, information about a dynamically created communication mechanism is sent at step 196 from a client and received at a server at step 224. This information is used in the creation of a socket, as illustrated by steps 228 and 230. That socket created, based on the dynamically allocated port, is used for communication as depicted at step 234 and subsequent steps.

It is therefore clear that the specification describes and the drawings show the claimed steps of “receiving information about a dynamically created communication mechanism over the established connection” and also “establishing a second connection over the network, on the dynamically created communication mechanism, between said first and second processes.”

Accordingly, Applicants respectfully request that the rejection of claim 15 under 35 U.S.C. §112 be withdrawn.

*Claims Rejections under 35 U.S.C. §112 second paragraph*

Claims 1, 15 and 17 are rejected under 35 U.S.C. §112 second paragraph. The Examiner asserts that the claims have omitted essential elements and that claims 1 and 15 need to recite at least one other “back-up and/or restore operation.” Applicants respectfully disagree.

No part of the application describes that the claimed invention requires that multiple back-up or restore operations be performed. While the computer system described in the present

application will likely be used in a commercial setting repeatedly and will therefore perform multiple back-up and restore operations, a computer system as recited in claim 1 is useful regardless of the number of times it is used for a back-up or restore operation. Accordingly, it is appropriate for the claim to recite only components used in a single back-up or restore operation.

The Examiner comments, in connection with the need to recite “back-up and/or restore operation” multiple times, that the claim recites two processes. However, the number of processes is unrelated to the number of back-up or restore operations performed. As can be seen in the example provided by Fig. 3, a back-up or restore operation can involve a client process 11A and a server process 11. Both of these processes may be involved in a single back-up or restore operation. In fact, a substantial portion of the present application is directed to describing a mechanism for establishing communication between a client process and server process so that a back-up or restore operation may be performed efficiently. Thus, recitation in claim 1 of a “first process and a second process” has no bearing on the number of back-up or restore operations performed and is not a basis to require further limitations in the claim.

The Examiner also objects to claim 17 because the phrase “back-up and/or restore operation” is not recited in any other limitation of the claim. A minor amendment has been made to claim 17 to correct the punctuation of the first limitation in the body of the claim and may address the Examiner’s objection with respect to claim 17.

If the change to the claim does not resolve the rejection, then Applicants respectfully submit that no further changes are required. One of skill in the art would understand claim 17 to describe a first and second computer process having a construction that allows the processes to participate in a back-up or restore operation. Further detail of the back-up or restore operation is not relevant to the inventions claimed in the present application. The emphasis of the specification is on establishing efficient communication between processes. Once an efficient communication mechanism is established, the back-up or restore operation may proceed as in a conventional computer system – or in any other fashion. Accordingly, it is intentional that the

claims do not recite further details of the back-up or restore operation because such details are not relevant to the invention.

As to the other defects noted with claim 17, Applicants understand the Examiner's comment to be a consequence of certain structural features being claimed by implication. Specifically, "a network" and "a data storage system" were referenced but not affirmatively recited as elements of the computer system. To address this objection, claim 17 has been amended to recite a network and a data storage system. These amendments do not alter the meaning or scope of the claim and therefore do not introduce new matter. In light of the above remarks and amendments to the claim, Applicants respectfully request that the rejection of claim 17 be withdrawn.

In paragraph 8 of the Office Action, the Examiner rejects claims 1 and 4 because they contain the term "allowing" and "allows." Applicants have amended claims 1 and 4 to remove those terms. These changes do not alter the scope of the claim and therefore do not introduce new matter.

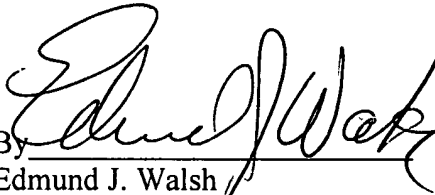
The Examiner also rejects claim 6. Claim 6 has also been amended to overcome the rejection. The changes to claim 6 do not alter the scope of the claim and therefore do not introduce new matter.

Because claims 1, 4 and 6 have been amended to overcome the rejections, Applicants respectfully request that the rejections of claims 1, 4 and 6 under 35 U.S.C. § 112 second paragraph.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

  
By \_\_\_\_\_

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